

Abstract

A transparent oxide electrode film is provided to have crystalline indium oxide as its main component, in which the indium in the indium oxide is substituted with titanium at a titanium/indium atomic ratio between 0.003 and 0.120, and the resistivity of the transparent oxide electrode film is 5.7×10^{-4} Ω cm or less, so as to provide excellent transmittance for both the visible light region and the infrared light region, and low resistivity.